

**THE ARAB BOARD FOR MEDICAL SPECIALIZATIONS  
SCIENTIFIC COUNCIL OF ANAESTHESIA**

**FINAL EXAM – Paper ONE  
12 September 2011  
9 – 11A.M**

**NAME: .....**  
**NUMBER: .....**  
**CENTER: .....**

1. The adverse effects of NSAIDs on the kidney, one is false:
  - A. Are reversible in normal kidneys
  - B. Are dose related
  - C. Are mediated by inhibition of PG I 2 synthesis
  - D. May cause acute interstitial nephritis
  - E. Are counteracted by the use of ACE inhibitors
2. Amitryptyline overdose is commonly associated with the followings EXCEPT:
  - A. Convulsions
  - B. Dysrhythmias
  - C. Metabolic acidosis
  - D. Hypothermia
  - E. Hypercapnia
3. Trigeminal ganglion block causes ipsilateral analgesia of:
  - A. Upper lip
  - B. Inside the nose
  - C. Angle of the jaw
  - D. External auditory meatus
  - E. Soft palate
4. A stellate ganglion block causes all of the following EXCEPT
  - A. Pupil constriction
  - B. Enophthalmos
  - C. Anaesthesia of the supraglottic part of the larynx
  - D. Increased cerebral blood flow
  - E. Anhydrosis
5. Concerning Reflex sympathetic dystrophy, which is FALSE:
  - A. May be associated with osteoporosis
  - B. May be associated with an increase in skin temperature
  - C. Often presents with pain as the presenting complaint
  - D. Is associated with vasomotor disturbances
  - E. Is more common in athletes
6. Sympathectomy may be used in the treatment of all EXCEPT;
  - A. Reynaud's diseases
  - B. Causalgia
  - C. Hyperhydrosis
  - D. Venous ulcers
  - E. Pain of intermittent claudication

7. Regarding a prolapsed disc at L5 – S1, which is TRUE:

- A. It is associated with scoliosis
- B. It is associated with loss of sensation on the medial side of the right calf
- C. It is associated with loss of knee jerk
- D. Onset of urinary incontinence requires urgent surgical treatment **#**
- E. A plaster cast is the treatment of choice

8. In TENS all are true EXCEPT:

- A. Works via A fibers
- B. Is useful for peripheral nerve injuries
- #C.** Is not useful for thalamic pain
- D. Uses voltages of 0 to 50 volts
- E. Uses frequencies of 1 to 100 Hz

9. Pulmonary capillary wedge pressure is a reliable parameter in all EXCEPT:

- #A.** In mitral regurgitation
- B. After anterior myocardial infarction
- C.** In pulmonary stenosis
- D. In aortic stenosis
- E. In pulmonary fibrosis

10. Regarding pressure gauges, one is TRUE:

- #A.** Work on the Bourdon principle
- B. Can be used to regulate gas flow
- C. Can convert gas at a high pressure into gas at a low pressure
- D. Form part of a flow meter
- E. Has no inertia

11. The laryngeal mask airway may be useful for the following indication EXCEPT;

- A. Ventilation
- B. Resuscitation
- C.** Intermittent positive pressure ventilation
- #D.** Microlaryngoscopy
- E. Ophthalmic anaesthesia

**12. During a long operation, reliable monitors of core temperature is:**

- A. Temperature probe at the tympanic membrane
- B. Temperature probe in the rectum
- C. Quadriceps muscle temperature
- D. Temperature probe in the nasopharynx
- E. Temperature probe in the oesophagus at the level of the cricoid

**13. Concerning ECG interference, which is FALSE:**

- A. Is reduced by screening of the leads
- B. Is reduced by main frequency of 100 Hz
- C. Is reduced by differential amplifiers
- D. Is reduced by decreased skin resistance
- E. Is reduced by the use of filters

**14. Thermodilution cardiac output measurement is inaccurate in all of the followings EXCEPT**

- A. If the injection is slow (10 ml over 5 seconds)
- B. If the injection is erratic
- C. If the injectate is at room temperature
- D. In the presence of tricuspid regurgitation
- E. In the presence of intra-cardiac shunts

**15. Regarding defibrillation of the heart, which is FALSE?**

- A. A capacitor is an important component of a defibrillator
- B. The amount of current flowing through the heart depends on the energy of the shock and transthoracic impedance
- C. Electrode pad size is an important determinant of transthoracic current flow
- D. The optimum duration of the output waveform is between 4 and 12 ms
- E. The output waveform of most advanced external defibrillators is monophasic

**16. Intensive care unit management of patients with severe traumatic brain injury include all the following EXCEPT:**

- A. Head elevation: 30–45°
- B. Cerebral perfusion pressure between 30–50 mmHg
- C. Intracranial pressure <20 mm Hg
- D.  $\text{SaO}_2 \geq 95\%$ ;  $\text{PaCO}_2 30 - 35 \text{ mm Hg}$
- E. Temperature  $\leq 37^\circ\text{C}$

**17. The PiCCO technology, one is TRUE:**

- A. Provides cardiac output measurements that do not correlate well with thermodilution cardiac output
- B. Does not provide continuous measurement of cardiac output unlike pulmonary artery catheters
- #C.** Allows for measurement of intrathoracic blood volume using transpulmonary thermodilution
- D. Does not provide an accurate reflection of preload
- E. Is static central pressure measurements.

**18. The definition of severe sepsis is one of the following:**

- A. The presence of viable bacteria in the blood.
- B. Systemic inflammatory response to a variety of severe clinical insults.
- C. The systemic response to infection.
- #D.** Sepsis associated with organ dysfunction, hypoperfusion, or hypotension.
- E. Presence of several altered organ functions in an acutely ill patient such that homeostasis cannot be maintained without intervention.

**19. In a pressure cycled ventilator, which is true:**

- A. Is a minute volume divider
- #B.** Is cycled from inspiration to expiration after a set pressure
- C. Is cycled from expiration to inspiration after a set time
- D. Has end expiratory pressure determined by the patient's compliance
- E. Ventilates a patient with obstructive airways disease more efficiently if operated at low flows

**20. In cardioversion for dysrhythmias, which is true:**

- A. The shock is given on the upstroke of the T wave
- B. General anaesthesia is always required for synchronised cardioversion
- C. AC is safer than DC current
- D. No preoperative assessment is needed for elective cases
- #E.** Ventricular fibrillation may result

**21. In septic shock, :**

- A. Peripheral hypothermia is associated with good prognosis
- B. The patients usually have a decreased cardiac output
- #C.** The patients usually have a depleted circulating volume
- D. The causative organisms are always gram negative
- E. Antibiotics should not be given before blood culture results are available

**22. In the diagnosis of brain death:**

- #A. Lack of EEG activity is essential
- B. Caloric tests must be performed bilaterally
- C. The admitting consultant must certify death
- D. Lack of stretch reflexes in all limbs is essential
- E. The pupils must be fixed and dilated

**23. Desmopressin acetate, the false statement is :**

- #A. Is useful for bleeding post-cardiopulmonary bypass
- B. Is used to treat diabetes insipidus
- C. Is used in primary nocturnal enuresis
- D. Is used to treat bleeding peptic ulcers
- E. Is given intranasally

**24. Positive end-expiratory pressure can cause all the following EXCEPT:**

- #A. Sodium retention
- B. Decreased cardiac output
- C. Increased residual volume
- D. Decreased pulmonary compliance dramatically
- E. Increased central venous pressure

**25. APACHE III utilizes all the following EXCEPT:**

- A. Temperature ( axillary °C )
- B. Mean arterial pressure ( mmHg )
- C. Heart rate
- D. Respiratory rate
- #E. PO<sub>2</sub>

**26. The 2010 AHA Guidelines for CPR and ECC emphasize the need for high-quality CPR, including all the following EXCEPT:**

- A. A compression rate of at least 100/min
- B. A compression depth of at least 2 inches (5 cm) in adults
- C. A compression depth of at least one third of the anteriorposterior diameter of the chest in infants and children
- D. Allowing for complete chest recoil after each compression
- #E. Ventilation rate 20 / min

27. The 2010 AHA Guidelines for CPR and ECC recommend all the following EXCEPT:

- A. Rescue breaths be given in approximately 1 second
- #B.** Compressions should be synchronized with ventilation once an airway device is inserted
- C. A change in the BLS sequence of steps from A-B-C (Airway, Breathing, Chest compressions) to C-A-B (Chest compressions, Airway, Breathing)
- D. The lone rescuer should begin CPR with 30 compressions rather than 2 ventilations to reduce delay to first compression
- E. "Look, listen, and feel" was removed from the CPR sequence.

28. An absolute indication for a double lumen tube is :

- A. Bronchopleural fistula
- B. Left pneumonectomy
- C. Giant unilateral lung cyst
- D. Unilateral bronchiectasis
- E. Oesophagectomy

29. In carbon monoxide poisoning all of the following are seen EXCEPT:

- A. Arrhythmias
- B. Hypotension
- C. Extensor plantars
- #D.** Cyanosis
- E. Hyperventilation.

30. Pulmonary oxygen toxicity during oxygen therapy is associated with:

- #A.** Prolonged exposure
- B. High altitude
- C. Increased muscle activity
- D. Increased carbon dioxide tension
- E. Anaemia.

31. In patients with haemorrhagic shock which is false?

- A. Physiological dead-space is increased
- B. Renal blood flow is decreased
- C. Antidiuretic hormone (ADH) secretion is increased
- #D.** The oxygen dissociation curve is shifted to the left
- E. Oxygen delivery is decreased.

32. An increased alveolar-arterial (A-a) gradient is associated with all of the following EXCEPT:

- A. An increased FIO<sub>2</sub>
- #** B. A decreased FIO<sub>2</sub>
- C. A decreased FRC
- D. An increased V/Q ratio
- E. An increased shunt.

33. A nasogastric tube is sited in a patient ventilated in critical care unit. Which one of the following is considered the MOST ACCURATE way of confirming correct positioning?

- #** A. Measurement of the aspirate using pH indicator strips
- B. Auscultation of air insufflated through the nasogastric tube (the 'whoosh' test)
- C. Testing the acidity/alkalinity of aspirate from the nasogastric tube using litmus paper
- D. Observing the appearance of the aspirate from the nasogastric tube
- E. Chest radiograph

34. The following are direct or indirect measurements of acute phase proteins EXCEPT?

- A. C-reactive protein
- B. Plasma viscosity
- C. Haptoglobin
- #** D. Rheumatoid factor
- E. Erythrocyte sedimentation rate

SBA final FRCA2010 35. The following statements regarding intensive care unit (ICU)-acquired weakness are true EXCEPT

- A. The incidence of critical illness polyneuropathy among septic shock patients is 80%
- B. Muscles of facial expression are spared by critical illness polymyopathy
- C. Presence of normal deep tendon reflexes does not eliminate the diagnosis of critical illness polyneuropathy
- D. Persistent hyperglycaemia is an independent risk factor for ICU-acquired weakness
- #** E. Electrophysiological studies typically show a reduced nerve conduction velocity

36. Of the following techniques, which one may be used to measure residual volume?

- A. Carbon monoxide dilution
- B. Total body plethysmography
- C. Bohr's method
- D. Pendelluft analysis
- E. Wet spirometry

SBA final FRCA 2010 37. A heat moisture exchanger incorporating a standard high efficiency particulate air (HEPA) filter has a pore size as small as or smaller than all of the following pathogens, EXCEPT:

- A. Mycobacterium tuberculosis
- B. Staphylococcus aureus
- C. Legionella pneumophilia
- D. Mycoplasma pneumonia
- E. Pseudomonas aeruginosa

38. All the following, are considered as features of spinal cord injury in unconscious patient, EXCEPT :

- A. Hypotension with bradycardia
- B. Rigid reflexes
- C. Diaphragmatic breathing.
- D. Loss of response to pain below an identified dermatomal level.
- E. Priapism.

39. The patient who can not do shoulder abduction , means that he has spinal cord injury at the level of :

- A. C3
- B. C4
- C. C5
- D. C6
- E. C7

40. All of the followings are indications of immediate head CT scanning after acute cranial injury EXCEPT:

- A. One episode of vomiting
- B. GCS less than 13 at any time of injury
- C. Focal neurological deficit
- D. Coagulopathy
- E. Sudden pupil dilatation

**41. Which of the followings is contraindication of non invasive ventilation :**

- A. Acute episode of COPD
- B. Pulmonary oedema with hemodynamic instability
- C. After thoracic surgery
- D. Treatment of post general anesthesia pulmonary atelectasis
- E. Weaning from invasive ventilation

**42. All of the followings are essentials to diagnose diabetic ketoacidosis, EXCEPT:**

- A. Acidosis with blood pH <7.3
- B. Serum bicarbonate < 15mEq/L
- C. Serum positive for ketones
- D. Elevated anion gap
- E. Hyperglycemia > 250 mg %

**43. All of the followings are true, concerning Guillain- Barre syndrome except**

- A. Progressive, relatively symmetrical weakness of two or more limbs
- B. Areflexia
- C. Spinal fluid analysis typically shows increased protein.
- D. The primary pathology is segmental demyelination
- E. Approximately 90% of patients will have had a recent vaccination of swine flu vaccine.

**44. The criteria for acute lung injury (ALI) include all the following, EXCEPT:**

- A. An oxygenation abnormality with a  $\text{PaO}_2/\text{FiO}_2$  ratio less than 300
- B. Bilateral opacities on chest radiograph compatible with pulmonary edema
- C. Pulmonary artery occlusion pressure is more than 30 mm Hg
- D. Predisposing factor is chest trauma
- E. Predisposing factor is high tidal volume mechanical ventilation

**45. DC cardio-version is indicated for all the following , EXCEPT:**

- A. Supraventricular tachycardia
- B. Ventricular tachycardia
- C. Atrial fibrillation
- D. Digitalis toxicity
- E. Atrial flutter

**46. The addition of continuous positive airway pressure (CPAP) into the breathing system causes an increase in all of the following EXCEPT :**

- A. FRC
- B. Static compliance of the lung
- C. Dynamic compliance of the lung
- D. Airway conductance
- E. Work of breathing

**47. An example of central pain state is**

- A. Post operative incision pain
- B. Gallbladder pain
- C. Phantom limb pain
- D. Bone fracture pain
- E. Headache

**48. In post herpetic neuralgia, which is TRUE:**

- A. Is common in children
- B. Is best treated with opioids
- C. Never responds to local application
- D. Never responds to tricyclic antidepressants
- E. Is a difficult syndrome to treat ,and success is limited

**49. Inhibitory substances that modulate the transmission of nociceptive signals in the dorsal horn of the spinal cord include the following EXCEPT**

- A. Substance P
- B. Beta -endorphins
- C. Dopamine
- D. Epinephrine
- E. Adenosine

**50. You are asked to discontinue an epidural catheter to a patient .he received a dose of low-molecular-weight heparin 2 hours ago you should;**

- A. Wait 12 hours after the last dose of LMWH
- B. Remove the catheter after confirming that PTT is normal
- C. Pull the cathether immediately
- D. Discontinue the catheter after waiting 24 hours
- E. Give a unit of fresh frozen plasma,then pull the catheter

**51. Advantages of patient-controlled analgesia (PCA) INCLUDE ALL THE FOLLOWING EXCEPT :**

- A. High patient satisfaction
- B. Elimination of painful injections
- C. No need to adjust dosing parameters with increasing age
- D. More consistent levels of analgesia
- E. The ability of patient to titrate pain relief to painful procedures

**52. Morbid obesity is associated with**

- A. Decreased cardiac output
- B. Hypertension
- C. Decreased pulmonary artery pressure
- D. Decreased blood volume
- E. Decreased cardiac workload

**53. Cardiovascular changes that occur with advancing age is:**

- A. Decreasing blood pressure
- B. Increase in cardiovascular reserve
- C. Loss of the elasticity of the vascular tree
- D. Increase in cardiac output
- E. Increased number of myofibrils

**54. You are called to see your patient in the recovery room because of elevated blood pressure readings .your approach should be ;**

- A. Treat immediately the blood pressure with a small dose of nitroglycerine
- B. Do nothing but wait to see if the hypertension is a transient problem
- C. Examin the patient for evidence of hypoxia or hypercarbia
- D. Recheck the cuff if it is the correct size
- E. Ask for a cardiology consultation

**55. All the following may be seen in patient with hypovolemia EXCEPT:**

- A. Increased heart rate
- B. Wide pulse pressure
- C. Decreased urine volume
- D. Flaccid neck vein
- E. Pale mucous membranes

**56. A patient is admitted for bariatric surgery he is diagnosed as a Pickwickian syndrome.his preoperative evaluation would show:**

- A. Alveolar hyperventilation ,anemia, and hypoxemia
- B. Alveolar hyperventilation, erythrocytosis, and hypoxemia
- C. Decreased expiratory reserve volume and higher intraabdominal pressure when supine
- D. Lower work of breathing
- E. Unimproved respiratory condition after weight reduction

**57. Concerning hypoventilation in the recovery room choose the best single answer**

- A. Should be treated always with opioid reversal
- B. Is common after inhalation anesthesia
- C. Is uncommon after upper abdominal procedures
- D. Is best detected by pulse oxymetry
- E. Is always accompanied by increasing blood pressure

**58. A man who is paraplegic because of a T4 injury is to undergo cystoscopy. A safe and effective management could be all the following EXCEPT**

- A. Diazepam sedation
- B. Diazepam sedation with local analgesia to urethra
- C. Local analgesia to urethra
- D. Spinal (subarachnoid) block
- E. General anaesthesia with thiopentone, nitrous oxide/oxygen, isoflurane.

**59. A 75 year old man is having transurethral resection of the prostate performed under spinal anesthesia 90 minutes later in the procedure, the patient thrashes about and complains of nausea and inability to see The most likely cause is :**

- A. Hypothermia
- B. Glycine toxicity
- C. Bladder perforation
- D. Hyponatremia
- E. Bacteremia

60. A patient is undergoing a transurethral resection of the prostate gland (TURP) under general anesthesia. Upon arrival in the recovery room, the patient appears restless and confused, his serum sodium checked and found to be 110meq/L. How many mEq of sodium are needed to raise the sodium level to 120mEq/L

- A. 300mEq
- B. 400mEq
- C. 500 mEq
- D. 600 mEq
- E. 700mEq

61. Which of the following is not a component of the post-anesthetic discharge scoring system (PADSS) from an ambulatory surgical facility?

- A. Drinking
- B. Ambulation
- C. Nausea and vomiting
- D. Pain
- E. Surgical bleeding

62. A 6-week-old baby born at 32 weeks gestation scheduled for elective repair of an inguinal hernia. The parents believe that they will be taking their child home today after surgery. You inform them

- A. They may take their child home today
- B. The child may have to stay for several hours
- C. The surgery will be postponed until the child reaches 60 weeks postconceptual age
- D. The child will be admitted for 23 hours apnea monitoring
- E. The child will need apnea monitoring at home tonight

63. Regarding day case surgery choose the best single answer

- A. Insulin-dependant patients may be considered if starved overnight
- B. Gastro-oesophageal reflux is not a contraindication to day surgery
- C. The patient may not drive nor operate machinery for 24 hours post operatively but preparing hot food is acceptable
- D. Regional anaesthesia is contraindicated
- E. Suxamethonium apnoea and malignant hyperpyrexia are contraindications to day surgery

**64. Concerning hip arthroplasty, one of the following statements is true**

- A. Methyl-methacrylate is a cardiac inotrope
- B. Hypoxia may be caused by marrow embolisation
- C. Regional techniques are associated with a greater overall survival rate
- D. Subcutaneous heparin will completely prevent dvt's
- E. Hypocapnia produced by ipvv is beneficial.

**65. Spinal anaesthesia for fractured neck of femur repair, compared with general anaesthesia include all the following EXCEPT :**

- A. Decreases mortality
- B. Reduces hospital stay
- C. Decreases the incidence of thromboembolism
- D. Provides better immediate postoperative pain relief
- E. Decreases intraoperative blood loss

**66. For amputation at mid-thigh the following nerves must be blocked EXCEPT :**

- A. Obturator
- B. Femoral
- C. Sciatic
- D. Genitofemoral
- E. Lateral cutaneous nerve of the thigh.

**67. Clinical manifestations of fat emboli include all of the following EXCEPT:**

- A. Petechiae
- B. Hypoxemia
- C. Confusion
- D. Bradycardia
- E. Cyanosis

**68. A 60 Kg woman who had over 50% second -and third -degree burns 10 days ago. She is brought for laparotomy, after an initial dose of 6mg vecuronium ,she requires additional neuromuscular relaxant within 10 minutes to maintain abdominal relaxation**

**The most likely explanation for this observation is the presence of:**

- A. Expirated vecuronium
- B. Interstitial edema
- C. Upregulation of acetylcholine receptors
- D. Splanchnic hypoperfusion
- E. A hyperdynamic circulation

69. A 10 year old, 40 kg child sustains a thermal injury to his leg , buttocks and back the estimated area involved is 50%. How much fluid should be administered during the first 24 hours ?

- A. 2.5l
- B. 4l
- C. 5.5l
- D. 8.0l
- E. 10.0l

70. All of the following statements concerning the physiologic reponse to drugs after burn injuries are true EXCEPT ?

- A. In the first 24 hour succinylcholine should be avoided
- B. Succinylcholine should be avoided for at least a year if the burn size exceeds 10%
- C. Resistance develops to all depolarizing muscle relaxants peaks five to sixweeks after injury if burn size exceed 30%
- D. Drugs bound to albumin will have an increased free fraction
- E. Drugs bound to  $\alpha_1$  acid glycoprotein will have a decreased free fraction

71. In emergency obstetric anaesthesia for Caesarean section, the followings are definite indications for general anaesthesia EXCEPT

- A. Local sepsis
- B. Antepartum haemorrhage
- C. Maternal dissatisfaction with regional blockade
- D. Obstetrician request
- E. Platelet count below 80,000/ml

72. A 27 year old woman is anesthetized for laparoscopy, and placed in a steep Trendelenburg position after insertion of the needle through the abdominal wall, and insufflation of carbon dioxide the patient developed a sudden onset of hypotension. All the following may be the causes EXCEPT :

- A. Carbon dioxide embolism
- B. Hemorrhage
- C. Compression of the vena cava
- D. Position
- E. Deep anesthesia

**73. What is the most appropriate step to take in the previous patient?**

- A. Flatten the table
- B. Inform the surgeon
- C. Administer epinephrine
- D. Aspiration of the gas via a right atrial catheter
- E. Descontinue the nitrous oxide

**74. About DIC , one of the following is FASLE:**

- A. The clinical presentation is hemorrhage ,bleeding from all puncture site
- B. Abnormal laboratory value include elevation in PT ,PTT, fibrinogen and platelets
- C. Gram -negative endotoxemia is a common cause
- D. Successful treatment is to treat first the underlying cause if possible
- E. Tranexamic acid proved to be helpful in treatment

**75. One of the following is a contraindication to epidural analgesia in labor:**

- A. Previous Caesarean section
- B. Fetal distress
- C. INR 1.6
- D. Maternal exhaustion
- E. Maternal multiple sclerosis

**GOOD LUCK**

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**THE ARAB BOARD FOR MEDICAL SPECIALIZATIONS  
SCIENTIFIC COUNCIL OF ANAESTHESIA**

SCIENTIFIC COUNCIL OF ANAESTHESIA  
FINAL EXAM - Paper TWO

**FINAL EXAM - Paper TWO  
12 September 2011  
12 - 2 P.M**

NAME: .....

NUMBER: .....

CENTER: .....

- 1. All are suitable techniques for pain relief in labor EXCEPT:**
  - A. Transcutaneous electrical nerve stimulation
  - B. Titrated Remifentanil
  - C. Epidural bupivacaine
  - D. Intrathecal narcotics
  - E. 70% Nitrous oxide in O<sub>2</sub> gen
- 2. About Halothane hepatitis, one of the following is true**
  - A. Occurs more commonly in males
  - B. Has a mortality of about 30%
  - C. Occurs with a maximum susceptibility when there has been about one month between exposures
  - D. Occurs in about 1/10000 cases of multiple administration of halothane
  - E. Has an onset most commonly about 2 weeks after exposure
- 3. One of the following is not recommended during pheochromocytoma removal:**
  - A. Morphine
  - B. Fentanyl
  - C. Diazepam
  - D. Isoflurane
  - E. Vecuronium
- 4. A young man who was brought to the emergency room, unconscious with pupillary constriction and depressed respiration. You note needle marks on his legs. You administer naltrexone, and he awakens. This agent was effective because:**
  - A. The patient was suffering from an overdose of a benzodiazepine.
  - B. Naltrexone antagonizes opiates at the receptor site.
  - C. Naltrexone is a stimulant of the CNS.
  - D. Naltrexone binds to the opioid and inactivates it.
  - E. Naltrexone is act on Mu receptors.

5. Following intravenous thiopentone and suxamethonium, causes of lack of muscle relaxation include all the following EXCEPT :

- A. Drug interaction
- B. Subcutaneous injection
- C. Porphyria
- D. Malignant hyperpyrexia
- E. Myotonia congenita.

6. Treatment of malignant hyperthermia includes all of the following EXCEPT:

- A. Cessation of anesthetic and changing of rubber tubing to anesthesia machine
- B. Administration of dantrolene sodium 1mg/kg by rapid intravenous infusion
- C. Hyperventilation of patient with 100% oxygen
- D. Administration of fluids and diuretics to control myoglobinemia and hyperkalemia
- E. Lidocaine is indicated for arrhythmias

7. Concerning MAC – awake of inhalational agent, one is false:

- A. It is when 50 % of patients respond to commands
- B. Patients may manifest signs of excitement
- C. Patients will not respond to surgical incision
- D. It is lower than the MAC
- E. The value applied at emergence

8. Atropine poisoning causes all the following EXCEPT:

- A. Circumoral pallor
- B. Tachycardia
- C. Cutaneous flush
- D. Constricted pupils
- E. High fever

9. Premedication with scopolamine alone is undesirable in patients with:

- A. Acute glaucoma
- B. Cerebrovascular insufficiency
- C. Myasthenia gravis
- D. Essential hypertension
- E. Severe pain

**10. What is your anesthetic plan to patient with Parkinson's disease:**

- A. Stopping levo- Dopa for 24/ hours before induction
- B. Avoidance of phenothiazine
- C. Use of neurolept anesthesia as a technique
- D. Anticipated need for larger than usual doses of pressors
- E. Use of high concentration of volatile agent instead of muscle relaxant

**11. Factors that will potentiate non- depolarizing muscle relaxant include all the following EXCEPT:**

- A. Respiratory acidosis
- B. Large body surface area burn
- C. Hypothermia
- D. Hypermagnesemia
- E. Administration of a volatile anesthetic

**12. In using general anesthesia for laparoscopic cholecystectomy, one is false:**

- A. Inhaled nitrous-oxide will increase the intra abdominal volume on pressure
- B. Decrease in FVC and FEV1 post operatively less than in open cholecystectomy
- C. Small but detectable CO<sub>2</sub> emboli are common
- D. Minute ventilation will need to be doubled
- E. Neuromuscular blockade should be optimum during gas insufflation

**13. Signs of hemolytic transfusion reaction under general anesthesia include all the following EXCEPT:**

- A. Hemoglobinemia
- B. Bronchospasm
- C. Hypotension
- D. Thrombus formation in large vessels
- E. Tachycardia

**14. A COPD patient has an altered induction with inhalation agent because of:**

- A. Decreased cardiac output
- B. Increased perfusion
- C. Increased PCO<sub>2</sub>
- D. Uneven ventilation
- E. Decreased minute volume

**15. The following drugs cause bronchospasm in asthmatics EXCEPT**

- A. Morphine
- B. Neostigmine
- C. Alfentanil
- D. Thiopentone
- E. Atracurium

**16. The most reliable sign of accidental IV injection of local anesthetics in a child under general anesthesia is:**

- A. Tachycardia during injection
- B. EKG changes
- C. Hypertension
- D. Convulsions
- E. Hypotension

**17. About The Laryngeal Mask Airway, choose the false statement:**

- A. Is an alternative airway device used for anesthesia and airway support.
- B. It consists of an inflatable silicone mask and rubber connecting tube.
- C. It is inserted blindly into the pharynx, forming a low-pressure seal around the laryngeal inlet and permitting gentle positive pressure ventilation.
- D. All parts are latex-free.
- E. The Laryngeal Mask Airway is an appropriate airway choice for morbidly obese patients

**18. About Hypokalaemia choose the false statement:**

- A. Causes ST segment depression on the EKG
- B. Causes mental depression
- C. Precipitates digoxin toxicity
- D. May precipitate muscle paralysis
- E. Occurs in untreated hyperosmolar non-ketotic diabetic coma.

**19. Postoperative hypoxia at 15 minutes may be due to all the following EXCEPT**

- A. Mild hypercapnia
- B. Nitrous oxide diffusion
- C. Central depression
- D. Increased V/Q scatter
- E. Shivering.

**20. Treatment of anaphylaxis may include all the following EXCEPT :**

- A. Sc adrenaline
- B. H1 and H2 antagonists
- C. Hydrocortisone
- D. IM chlorpromazine
- E. IV salbutamol

**21. A young man admitted to casualty following a road traffic accident in shock with a central dislocation of the hip. The most probable cause of shock is:**

- A. Ruptured bladder
- B. Ruptured urethra
- C. Blood loss
- D. Neurogenic shock
- E. Fat embolism.

**22. About Cricoid pressure choose the false statement :**

- A. Is effective in the presence of a nasogastric tube
- B. Requires a complete cricoid cartilage to be effective
- C. Should be performed with the neck extended
- D. Should be performed during pre-oxygenation
- E. Compresses the oesophagus against the cervical vertebrae.

**23. In the elderly, choose the false statement:**

- A. Chest wall compliance is decreased
- B. Vital capacity is decreased by 20ml each year
- C. Closing volume is less than FRC
- D. PaO<sub>2</sub> is lower than in the young
- E. In a 70-year-old the alveolar/arterial oxygen difference is about 2.7kPa (20 mmHg)

**24. After inserting an epidural catheter in Obstetrics, with a negative test, you come back 20 minutes to start your labor epidural infusion and find the patient unresponsive and apneic, you are most probably dealing with:**

- A. A delayed epidural block
- B. A spinal block
- C. A local anesthetic toxicity
- D. A sub-dural block
- E. An anaphylactic reaction to Local Analgesic

**25. About Interscalene block , which is false:**

- A. Is not good for hand surgery
- B. Is likely to work when paraesthesia or twitches occur over the shoulder.
- C. Is useful for operations on the shoulder or upper arm
- D. Can be used to reduce dislocated shoulder
- E. Frequently blocks the phrenic nerve

**26. One of the following is most likely to result in a technical complication that may require hospitalization of an a patient undergoing outpatient surgery:**

- A. Spinal anesthesia
- B. Epidural anesthesia
- C. Axillary block
- D. Inter scalene brachial plexus nerve block
- E. Local infiltration

**27. Which anesthetic technique would be LEAST indicated for a patient with severe COPD who needs repair of a broken first finger?**

- A. Local infiltration.
- B. Humeral block.
- C. Axillary block.
- D. Bier block.
- E. General Anesthesia.

**28. The physiological response to surgery include all of the following EXCEPT:**

- A. A decrease in urine volume
- B. A decrease in the urinary excretion of sodium
- C. A decrease in plasma cortisol level
- D. An increase in the urinary excretion of nitrogen
- E. An increase in the urinary excretion of potassium

**29. Regarding the anatomy and regional anaesthesia of the lumbar plexus, the following statements are true EXCEPT:**

- A. The lumbar plexus is described as being derived from spinal nerve roots T12–L4
- B. The genitofemoral nerve is of L1–2 spinal root origin
- C. The lumbar plexus is embedded in the psoas major muscle
- D. A lumbar plexus block combined with a proximal sciatic nerve block can provide complete anaesthesia for all leg and foot surgery
- E. Lumbar plexus block is better tolerated by patients without the need for sedation/analgesia

**30. Which one of the following statements regarding the anatomy of the brachial plexus is TRUE?**

- A. The median nerve derives contributions from spinal nerve roots C5 to C8
- B. The upper, middle and lower trunks each have divisions that unite to form the posterior cord
- C. The axillary and radial nerves are both derived from the lateral cord
- D. The medial cutaneous nerves of the arm and forearm are branches of the ulnar nerve
- E. The lateral cutaneous nerve of the forearm is a terminal branch of the radial nerve

**31. Which of the following is an example of ASA Class IV patient?**

- A. Compound fractured femur
- B. Insulin-dependent diabetic with autonomic neuropathy
- C. Crescendo angina
- D. Pheochromocytoma
- E. GCS 3 and disseminated intravascular coagulopathy

32. A patient with hypertrophic obstructive cardiomyopathy undergoes appendectomy. Which of the following drugs will worsen the obstruction?

- A. Ketamine
- B. Verapamil
- C. Phenylephrine
- D. Beta blockers
- E. Halothane

33. All are seen in cardiac tamponade, EXCEPT:

- A. Increased CVP
- B. Decreased RV filling
- C. Electrical alternans
- D. Decreased LV contractility
- E. Hypotension and tachycardia

34. Which of the following is true about the use of an Intra-Aortic Balloon Pump (IABP)?

- A. Increases systolic coronary perfusion
- B. Increases afterload
- C. Decreases resistance to LV ejection
- D. IABP inflation occurs just after the R wave on ECG
- E. Contraindicated in aortic stenosis

35. Each of the following statements about heparin are true EXCEPT:

- A. It is a strong organic acid
- B. It is protein-bound.
- C. It requires a co-factor (anti-thrombin III)
- D. The biological half-life (at normothermia) is 40 minutes
- E. It can severely reduce platelet count

36. Heparin resistance is associated with all of the following EXCEPT:

- A. Recent heparin exposure
- B. Low-grade DIC
- C. IV nitroglycerin
- D. Streptokinase within the last 24 h
- E. Increased anti-thrombin III activity

**37. What is the most common coagulation defect after Cardiopulmonary Bypass (CPB)?**

- A. Reduced thrombin
- B. Defibrinogenation
- C. Decreased levels of factor V
- D. Platelet dysfunction
- E. Decreased levels of factor VIIIa

**38. Which of the following statements is TRUE regarding routine safety when using intraoperative lasers?**

- A. Limit oxygen concentration to 30 - 40%
- B. Only the anesthetist and the surgeon are to wear protective goggles.
- C. Mandatory to use a PVC tube
- D. Inflate the ETT cuff with nitrous oxide
- E. Limit nitrous oxide to 50%

**39. Phosphodiesterase (PDE) inhibitors, which is false:**

- A. Prevent breakdown of cAMP to 5'AMP
- B. Reduce afterload
- C. Cause vasodilatation
- D. Increase myocardial contractility
- E. Significantly increase survival in ischaemic heart disease

**40. Modest improvement in the memory of patients with Alzheimer's disease may occur with drugs that increase transmission at which of the following receptors?**

- A. Adrenergic.
- B. Cholinergic.
- C. Dopaminergic.
- D. GABAergic.
- E. Serotonergic.

**45. Causes of raised intracranial pressure include all of the following EXCEPT:**

- A. Polycythaemia
- B. Meningitis
- C. Alkalosis
- D. Water intoxication
- E. Uraemia

**46. Infant under anesthesia loses body heat by all the following EXCEPT:**

- A. The metabolism of brown fat
- B. Breathing dry gas
- C. Conduction to cold surrounding
- D. Cold skin preparation solution
- E. Exposure of abdominal contents

**47. Premature neonates tend to have all the following , EXCEPT:**

- A. Are prone to develop hypocalcaemia
- B. Are sensitive to non-depolarising muscle relaxant drugs
- C. Have reduced insensible water loss
- D. Have increased plasma unconjugated bilirubin levels
- E. Are prone to develop apnoeic spells.

**48. All the following are true, concerning congenital diaphragmatic hernia, EXCEPT:**

- A. The degree of hypoplastic lung tissue is an important indicator for prognosis.
- B. Awake intubation is good choice .
- C. Positive pressure ventilation is good choice.
- D. Pneumothorax in centralateral side is frequent complication.
- E. The presenting symptoms include respiratory distress, cyanosis, and scaphoid abdomen.

**53. Intermittent porphyria, which is FALSE:**

- A. Is autosomal recessive
- B. Can present with autonomic dysfunction
- C. Can present with abdominal pain and no other signs
- D. Can present with psychosis
- E. Can be started by ethanol

**54. In a patient who has had a traumatic quadriplegia for one week, which is FALSE:**

- A. Intermittent positive pressure ventilation can cause hypotension
- B. Suxamethonium sensitivity occurs
- C. Retention of urine occurs
- D. Increased tendon jerks occur
- E. Steroids improve prognosis

**55. Known myasthenic patient on treatment came to emergency room with global weakness, the best to distinguish between myasthenic crisis or cholinergic crisis of her myasthenic treatment is:**

- A. Rapid onset of ventilatory failure
- B. Response to dose of cholinesterase inhibitor
- C. Flaccid muscle paralysis
- D. Presence of bronchospasm
- E. Loss of deep tendon reflexes

**56. A previously fit and well 52-year-old patient develops a regular narrow-complex tachycardia in recovery, but is otherwise stable with a blood pressure of 125/85mmHg. There is no change in the rhythm after carotid sinus massage, and 2 doses of adenosine (6mg and 12mg IV), What would you do next ?**

- A. Give digoxin 500 mcg intravenously
- B. Give amiodarone 300mg loading dose intravenously
- C. Give verapamil 2.5mg intravenously over two minutes
- D. Give adenosine 12mg intravenously
- E. Perform synchronised DC cardioversion

57. An 82-year-old female is scheduled for a hip hemiarthroplasty. On examination she has a small volume, regular pulse. Her blood pressure is 136/72mmHg and her JVP is not raised. She has an undisplaced, tapping apex beat. On auscultation, she has a short rumbling diastolic murmur audible all over the precordium. Which one of the following is the MOST LIKELY valve lesion?

- A. Mitral stenosis
- B. Aortic regurgitation
- C. Mixed aortic valve disease
- D. Tricuspid stenosis
- E. Pulmonary regurgitation

58. Intraocular pressure is increased by all of the followings EXCEPT:

- A. Hypercapnia
- B. Extrinsic compression of the globe with an anaesthetic mask
- C. Suxamethonium
- D. Intubation
- E. Deep inhalational and thiopentone anaesthesia

59. The following can cause increase in PAWP EXCEPT

- A. Myocardial infarction
- B. Mitral stenosis
- C. Aortic incompetence
- D. Pulmonary fibrosis
- E. Pulmonary stenosis

60. Which of the following cause increase of end tidal CO<sub>2</sub>:

- A. Increase blood flow to the lung
- B. Hypothermia
- C. Pulmonary oedema
- D. Hyperventilation
- E. Kinking of the sampling catheter

70. A 3 year old child undergoing CT scan for the diagnosis of an intracranial tumor, The anesthetist planned to give Chloral Hydrate, All of the followings should be in mind for Chloral hydrate EXCEPT:

- A. The oral dose is 30-50 mg/kg
- B. The rectal dose is 30-50 mg/kg
- C. The drug should be given 30-60 min before the procedure
- D. In sedative dose, no respiratory depression is caused by the drug
- E. There is about 50% failure rates to prevent movement during the procedure

71. The most serious complication of laser surgery of the upper airway is:

- A. Airway fire
- B. Endotracheal tube perforation
- C. Blindness of the patient
- D. Laryngeal granulation tissue formation
- E. Tongue ulcers

72. Regarding the asthmatic patient presenting for surgery, one is true:

- A. Anticholinergic premedication is useful as a drying agent and bronchodilator
- B. Thoracic epidural analgesia causes problems because of intercostals paralysis and bronchoconstriction due to thoracic intercostals blockade
- C. Anticholinesterase drugs given to reverse neuromuscular blockers may precipitate bronchospasm
- D. Mechanical ventilation should incorporate a prolonged inspiratory time
- E. Sodium cromoglycate may be used acutely to treat atopic asthmatic attacks

73. Regarding preoperative medication, one is true:

- A. Digitalised patients should receive atropine before induction to protect against bradyarrhythmias
- B. Antivuscularants should be withdrawn prior to surgery because of their unpredictable effects on anesthesia
- C. Benzodiazpines have no effect on the action of muscle relaxant drugs
- D. In patients taking steroids additional steroid cover is only required for major procedures
- E. Preoperative admisitration of magnesium prolongs neuromuscular blockade

**74. Concerning pulse oximetry, all the following are true EXCEPT:**

- A. It provides a continuous, non invasive measurement of oxygen saturation
- B. It utilizes the Lambert-Beer law
- C. Measures light absorption by reduced and oxygenated haemoglobin
- D. Carboxyhaemoglobin, methaemoglobin, methylene blue and anaemia overestimates oxygen saturation ( )
- E. The pulsatile and non-pulsatile component of light absorption are measured at 2 wave lengths (red & infrared)

**75. Hemolysis in blood warmed before or during rapid transfusion is least frequent with**

- A. Radio wave warmers
- B. Microwave warmers
- C. Water-bath warmers
- D. Electromagnetic warmers
- E. Dry-heat warmers

**GOOD LUCK**

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**INSTURCTIONS FOR THE EXAM**

1. Mark your number and write your name
2. Be sure to give all papers (questions & answers sheets) to the supervisor before you leave the exam room. Any missing paper may oblige us to cancel your examination.
3. Time allowed: **TWO HOURS.**
4. You are not allowed to leave the examination hall before 30 minutes have passed.
5. If you have an urgent need to talk to the supervisor or to leave the room for any reason, you have to raise your hand (do not ever talk) until he comes and responds to your request.
6. Try to answer all the questions, as there is no penalty for wrong answers.
7. This book contains /18 / numbered pages. Verify the number of pages. Be sure that there are no repeated pages or missing ones.

This paper consists of 75 multiple-choice questions. There is only one correct answer for each question. Select the single most appropriate answer and mark it on the answer sheet.

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